Assessing the value for money of an integrated health and wellbeing service in the UK

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Competing interests

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The other authors declare that they have no competing interests.

ASSESSING THE VALUE FOR MONEY OF AN INTEGRATED HEALTH AND WELLBEING SERVICE IN THE UK

ABSTRACT

Lay health workers have been utilized to deliver health promotion programmes in a variety of settings. However, few studies have sought to determine whether these programmes represent value for money, particularly in a UK context. The present study involved an economic evaluation of Wellbeing for Life, an integrated health and wellbeing service in northern England. The service combined one-to-one interventions delivered by lay health workers (known as health trainers), group wellbeing interventions, volunteering opportunities and other community development activities. Value for money was assessed using an established economic model developed with input from a panel of commissioners and providers, and the main data source was the national health trainer data collection and reporting system. Between June 2015 and January 2017, behaviour change outcomes (i.e. whether client goals in relation to diet, physical activity, smoking or other behaviours, had been achieved) were recorded for 2433 of the 3179 individuals who accessed one-to-one interventions. The level of achievement observed gave an estimated total health gain of 287.7 quality-adjusted life years (QALYs). In addition, there were 4669 health-promoting events, five asset mapping projects and 1595 occurrences of signposting to other services. Combining the value of individual behaviour change with the value of these additional activities gave an overall net cost per QALY gained of £3,900 and a total estimated societal value of at least £3.45 for every £1 spent on the service. These results suggest that the Wellbeing for Life service offered good value for money. Further research is needed to systematically and comprehensively determine the societal value of similar holistic, asset-based and lay-led approaches.

Key words: UK; lay health workers; behaviour change; wellbeing; value for money; economic evaluation; cost-effectiveness; QALY

INTRODUCTION

Lay health workers (LHWs) have been deployed in numerous settings to offer services that span the healthcare continuum, from primary prevention to disease management (Moore & Earp, 2007). These services often involve working primarily with disadvantaged, vulnerable or marginalised communities, and thereby aim to address health inequalities as well as supporting general health and wellbeing improvement. In many cases, LHWs are recruited from their target communities, in part to help build capacity within those communities. This has been described in one particular programme – the UK Health Trainers Initiative – as a shift from 'advice from on high to support from next door' (Department of Health, 2004). Health trainers, like many LHWs, receive specialised training but have no formal professional certification, although there is evidence that the role has become increasingly professionalised over time (J Mathers, Taylor, & Parry, 2014). Ambiguity exists with respect to many LHW roles and what exactly constitutes 'layness' in particular contexts (Carr et al., 2011). However, most published descriptions reference LHWs as being from or like the target population in relevant ways (Swider, 2002). Other common components include conducting outreach to under-served communities and delivering culturally sensitive health education and counselling (Haines et al., 2007; Nemcek & Sabatier, 2003; Witmer, Seifer, Finocchio, Leslie, & O'Neil, 1995).

Systematic reviews have demonstrated the diversity of LHW programmes in terms of intervention aims, content and outcomes (Carr et al., 2011; S. Lewin et al., 2010; S. A. Lewin et al., 2005; Viswanathan et al., 2009). The literature is suggestive of effectiveness in some settings and for certain health conditions; for example, there is good evidence to support the use of LHWs in promoting disease self-management, smoking cessation, and uptake of cancer screening (Pennington et al., 2013). Much of the existing literature comes from either North America or developing countries, where differences in the organisation and funding of health services, as well as demographic factors, are likely to mean that the findings are poorly generalizable to a UK context.

Furthermore, there is a dearth of data relating to intervention component costs and few studies report a standard measure of costs per quality adjusted life-years (QALYs) saved. The feasibility and acceptability of many lay-led programmes is well established (for examples, see: Reinschmidt et al., 2006; Springett, Owens, & Callaghan, 2007; Visram, Clarke, & White, 2014), but there remains a need to determine whether or not they represent value for money (VfM). This paper reports the results of an economic evaluation of a UK-based LHW programme, the Wellbeing for Life (WFL) service. The purpose of the study was to assess whether WFL represented VfM, using a combination of techniques to determine the cost-effectiveness and societal value of the service.

The concept of VfM is high on the political agenda in the UK, given the ring-fencing of public health budgets, increasing demand on health and social care services, and reductions in central government funding for local authorities (Chu, 2018; Graham Lister & Merritt, 2013). Effort is increasingly being devoted to making the economic case for investment in prevention (A. O. Banke-Thomas, Madaj, Charles, & van den Broek, 2015; Newton & Ferguson, 2017). However, valuing the health, wellbeing and societal impacts of preventative services is not always straightforward. This is particularly true of lay-led health promotion programmes, which generally involve limited resources, multi-component interventions, and multiple outcomes for communities and health providers. Consequently, the VfM of many LHW programmes has not been extensively or systematically assessed (Vaughan, Kok, Witter, & Dieleman, 2015). According to Banke-Thomas *et al* (2017), VfM is a broad concept 'encompassing economy, efficiency and effectiveness, in addition to cost-effectiveness', whereby economy relates to minimizing resources or inputs, efficiency involves maximizing the outputs achieved from those resources, and effectiveness is the relationship between intended and actual results (Bond, 2012; NAO, 2011). Methods typically used to demonstrate cost-effectiveness include cost-utility analysis (CUA), cost-benefit analysis (CBA), cost-consequences analysis (CCA) and, more recently, social return on investment (SROI) (A. Banke-Thomas et al., 2017; NICE, 2013). In their guidance for local authorities, the UK National Institute of Health and Care Excellence (NICE) advocates for a dual approach, combining CUA and either CBA or

CCA to 'ensure all relevant benefits (health, non-health and community benefits) are taken into account' (2013, p.2). Increasingly, SROI is seen as a more comprehensive and accessible, albeit time-consuming, approach, particularly in a global health context (A. O. Banke-Thomas et al., 2015). The study described here combined CUA, CCA and elements of SROI methodology to strengthen the VfM assessment of the WFL service and generate generalizable results for those seeking to implement similar programmes.

MATERIALS AND METHODS

Intervention

WFL set out to provide an integrated health and wellbeing service by combining one-to-one behaviour change interventions, group wellbeing improvement sessions, volunteer support and capacity building, and other community development-related activities. The service employed an asset-based and community-centred approach, drawing on existing strengths within the target communities and offering clients the opportunity to tailor the intervention to their needs (Foot & Hopkins, 2010; South, 2015). For example, a client might request one-to-one advice on stopping smoking, attend a short course on healthy eating, or be supported to join a friendship group involving art- and craft-based activities (or all of the above).

The service aimed to work predominantly with the 30% most deprived communities in County Durham, a mixed rural and urban area of northern England where health is generally worse than the national average (PHE, 2018). WFL staff were based in one of three hubs located in north, east and south-west Durham, although most engaged in outreach activities as well as intervention delivery. The service also targeted specific 'high need' populations: veterans, socially isolated older people, those with mild to moderate mental health issues, manual workers, and lesbian, gay, bisexual and transgender groups. Staff members working with these populations provided a service across the county, rather than working exclusively in the 30% most deprived communities. One-to-one

behaviour change clients received up to eight sessions with a health trainer, or 12 sessions in the case of the 'high need' intervention, and group-based activities lasted for at least four sessions. The WFL service was funded by Durham County Council, delivered by a consortium of public and third sector providers, and launched on 1st April 2015.

Data collection

A VfM assessment was undertaken as part of a wider evaluation of the WFL service (Cheetham et al., 2017). The main source of data was the health trainer data collection and reporting system (DCRS), which was developed to collect information on socio-demographic characteristics, health and lifestyle indicators, and outcomes from clients of health trainer services across England. DCRS enabled the collection of standardised behaviour change data, although variations in the commitment of local services to use a centralised database for this purpose limit the ability to conduct comparisons (Jonathan Mathers, Taylor, & Parry, 2016). Data were gathered by WFL staff at the beginning and end of the one-to-one intervention, as part of the process of developing and agreeing a personal health plan with their clients. Other sources of relevant data included a 'scorecard' completed by the WFL manager and submitted to the service commissioners at the end of each financial quarter. The scorecard was a Microsoft Excel spreadsheet that included details on volunteering, training and capacity development, wellbeing improvement group delivery and community development activities that were not recorded via DCRS. The WFL manager also provided the evaluators with information on net service costs (i.e. the funding provided by the local authority commissioners over the evaluation period) and total volunteering hours. A breakdown of these costs is shown in table 1.

[Insert table 1 here]

Anonymised, individual-level data relating to all WFL clients during the evaluation period (1st June 2015 to 31st January 2017) were extracted from DCRS to examine health and lifestyle changes that

might be attributable to the intervention. The main outcome measure used in the VfM assessment (described below) related to whether or not clients had achieved the behaviour change goals set in their personal health plan on completion of the one-to-one intervention. This was recorded in DCRS as fully achieved (i.e. achieved all goals), part achieved (i.e. achieved some but not all goals), not achieved, or outcome unknown (often because clients could not be contacted). Data relating to other relevant activities were extracted from the WFL scorecard for the same period.

Data analysis

VfM was assessed using a 'ready reckoner', or economic model, initially developed by Professor Graham Lister in 2010 (then updated in 2016 using 2014/15 values) with input from a stakeholder panel of experienced health trainer service commissioners and providers and leading experts on health economic evaluation. The process of developing and testing the model is described in detail elsewhere, along with the evidence and assumptions used (G Lister, 2010). In short, the model provides a framework to assess health trainer performance in relation to service objectives and compare this to costs, based on assumptions drawn from published evidence of the short- and long-term impacts of behaviour change. Other activities, such as asset mapping (identifying the existing strengths and resources within target communities) and signposting (referring clients to other services or activities), were valued by comparing the costs and outcomes with broadly similar primary care interventions. The estimates were then adjusted to take into account impact on health inequalities by applying a factor derived from the Health England Leading Prioritisation (HELP) review, to reflect the value of targeting disadvantaged groups (Health England, 2009).

Demonstrating whether or not health trainer services save money for the English National Health Service (NHS) was identified as a key priority by the stakeholder panel involved in developing the model (G Lister, 2010). Additional areas for consideration included the impacts on clients, communities and other public sector services (namely, local authorities and offender management services), as well as the contribution to health equity.

The ready reckoner is an Excel spreadsheet that supports the calculation of health gains, cost savings and net cost per unit of health gain. It is free to download and use from: https://www.building-leadership-for-health.org.uk/evaluating-behaviour-change/health-trainers-health-economics-behavioural-economics-new-media/. The values applied can be varied to respond to local circumstances, as was the case following discussion with the WFL commissioners and providers. Asset mapping was valued at £60,000 (reflecting the extended period of community and stakeholder engagement involved in mapping existing assets and the estimated cost of providing such resources by alternative means) and signposting to other services was valued at £20 for each occurrence (based on potential benefit and estimated uptake). These figures were derived from the evidence-based estimates suggested within the ready reckoner but modified to reflect local needs and perspectives. The spreadsheet does not include group-based interventions and therefore the WFL wellbeing improvement groups were included instead as 'health-promoting events' (an alternative category specified within the model). Since it was not possible to determine how many group sessions each client attended, one occurrence per client was assumed but a relatively high value (£100) was ascribed. As before, this figure was selected from the estimates within the ready reckoner (based on evidence regarding the value of group support in increasing the likelihood of behaviour change maintenance) and agreed through discussion with the WFL commissioners and providers.

Following agreement of these values and assumptions, the ready reckoner was used to generate estimates of: potential health gains available per one-to-one behaviour change client; potential cost savings to the NHS per unit of health gain; and potential savings to other stakeholders. The net costs of WFL after savings were then compared with the value of health gain (with and without weighting for disadvantage), to produce the estimated societal value of the service. Two QALY values were used in the VfM assessment: the first came from the initial ready reckoner and was agreed at that time with the UK Department of Health and Social Care (G Lister, 2010). This was based on the upper estimate of the non-fatal injury value derived from a Department of Transport willingness-to-pay

survey, which in 2008/09 prices gave an estimate of £27,000 and in 2014/15 prices equated to £31,000 (Donaldson, 2006). The second value came from guidance on how to quantify the health impacts of government policies, in which the Department of Health and Social Care estimated that a human QALY had a monetised value of £60,000 (Glover & Henderson, 2010). The two values were used in an effort to avoid under- or overestimating the value of the service, although it is acknowledged that other values within this range could have been used (Mason, Jones-Lee, & Donaldson, 2009). The ready reckoner was used to test the sensitivity of outcomes to higher or lower assumptions (+/-10%) concerning the extent of any health gain and maintenance of behaviour change achieved over the remaining life expectancy of the participants, and also test the application of a discount rate of 3.5% (following the recommendation of HM Treasury (2018)) to long-term outcomes.

See the completed ready reckoner (Supplementary Material 1) for further detail on the values, assumptions and calculations described here.

RESULTS

Sample characteristics

Between June 2015 and January 2017, the WFL service initiated contact with 4152 potential clients, through a combination of outreach activity, self-referrals and signposting (mainly from general practice). Of these individuals, 3518 were assessed as being eligible for the intervention, although 444 chose not to proceed. A further 25 requested information only, 151 were signposted to other services and 434 could not be contacted. The characteristics of the 3179 individuals who went on to become WFL clients are shown in table 2, which demonstrates that the majority were female, White and living in more socio-economically disadvantaged areas. Clients were broadly similar to the wider

population of County Durham, where only 1.5% of residents are non-White and 42.2% of residents live in the 30% most deprived areas nationally (Durham County Council, 2015; ONS, 2013).

[Insert table 2 here]

Valuing individual behaviour change

Behaviour change was valued by identifying the numbers of clients who selected specific behaviour change goals and then went on to fully or partially achieve those goals at completion of the one-to-one intervention. This outcome was recorded for 2433 individuals (76.5% of the client population). Of these, 1860 set goals related to diet and physical activity (54.0% fully achieved, 18.5% part achieved); 224 set goals related to their emotional wellbeing (50.9% fully achieved, 22.7% part achieved); 100 set goals related to smoking (47.0% fully achieved, 10.0% part achieved); and 15 set goals related to alcohol (46.7% fully achieved, 26.7% part achieved). A further 234 clients set behaviour change goals categorised by the model as 'other', which included social interaction, volunteering and education (33.2% fully achieved, 19.5% part achieved). These data highlight that, in many cases, around three-quarters of clients achieved some or all of their goals. They also illustrate that the majority of WFL clients set out to change diet and physical activity-related behaviours.

The ready reckoner estimated that the level of achievement observed in relation to clients' health-related goals equated to a gain of 259.7 QALYs. A further 18.9 QALYs were gained in relation to clients seeking help with emotional wellbeing and 26 QALYs were gained through signposting to other elements of the WFL service, giving a total of 304.6 QALYs arising from the one-to-one intervention. After adjusting for the proportion of clients from the least deprived communities, this figure is reduced slightly to give an estimated total health gain of 287.7 QALYs. It was assumed that individuals from these communities would access services without signposting, based on the behaviour change literature highlighting lower take-up of interventions by disadvantaged groups (Michie, Jochelson, Markham, & Bridle, 2009; White, Adams, & Heywood, 2009). The weighted cost saving to the NHS from this element of the service is £1,477,911.

Valuing other WFL activities

Other relevant WFL activities involved asset mapping, signposting to other services and delivery of health-promoting events. The latter included 2045 group clients, 933 individuals who received mini 'health MOTs' (a brief intervention, linked to the NHS Health Check Programme, which involves measuring weight, blood pressure and various lifestyle indicators (NHS Choices, 2016)) and 1691 recipients of training and capacity-building activities delivered by WFL staff. The total number of events was 4669, with an estimated value of £466,900.

Staff undertook five asset mapping projects, which were each ascribed an estimated value in the model of £60,000 (£300,000 in total). Signposting to other services was valued at £31,900, based on 1595 occurrences of signposting and a value per occurrence of £20. The total value of the additional activities offered by the WFL service is £798,800. Much of this is contributed by the wellbeing improvement groups and therefore the total is likely to be an underestimate, given that many clients probably attended multiple sessions. Furthermore, any potential health gains experienced by group participants are not directly included in the model.

Total health gain and cost-effectiveness

The total health gain from the WFL service (287.7 QALYs) implies an estimated cost saving to the NHS of £1,477,911, not including £300,000 for costs offset from asset mapping and £498,800 from signposting and events (see table 3). The results indicate an additional cost saving to social care of £126,326 (linked to the reduction in adverse health outcomes) and to criminal justice of £3,883 (from reduced alcohol and substance abuse by clients). Therefore, the total public sector cost saving attributed to the WFL service is £2,406,920.

[Insert table 3 here]

The net cost per unweighted total QALY for the entire service therefore equates to a cost utility of £3,900 (i.e. the total public sector cost savings and offset divided by the total health gain). This figure

is well below the threshold for cost-effectiveness set by the UK National Institute of Health and Care Excellence (NICE) (£20,000-30,000 per QALY), suggesting that the WFL service as a whole represented VfM. The sensitivity analysis showed that discounting at 3.5% and changing all of the assumptions by +/-10% did not materially change this result. The analysis with more optimistic assumptions gave an estimated cost per QALY of £5,291, while the pessimistic assumptions gave an estimated cost per QALY of £8,328. Changing only the health gains (from 252.3 to 324.3 QALYs) gave an estimated cost per QALY of between £3,460 and £4,443.

Societal value

A broader view of the societal impact of WFL must include impacts arising from reduced unemployment and employer costs relating to a reduction in absence due to illness. The additional estimated impact on the economy of WFL through employment impacts is £1,340,528, derived from Dame Carol Black's review of the health of Britain's working age population (Black, 2008). Additionally, the 7,562 volunteer hours created through the volunteering element of the service have been valued at £13.75 per hour (based on an average weekly UK wage of £539 (ONS, 2016) and average hours per week of 39.2 (539/39.2=13.75)), giving a total value of £103,977.50. This figure does not include any health, wellbeing or social benefits experienced by the volunteers (or intervention staff) and is therefore likely to be an under-estimate.

Table 4 shows the total estimated societal value of the WFL service. Based on the lower human value of a QALY of £31,000 (which is related to the impact on NHS costs), the value of QALY improvement associated with the individual behaviour change and signposting element of the service alone is £8,917,426. The sum of this figure with the additional benefits shown in table 2 gives an overall value and long-term public sector savings of at least £12,664,874.Using the higher human value of a QALY of £60,000 (which relates to the wider social impact on health and wellbeing), the total value increases to £21,006,983. Taking into account the net cost of delivering the WFL service over the

evaluation period (£3,528,894), this equates to an unweighted societal value of between £3.59 and £5.95 for every £1 spent.

[Insert table 4 here]

The health trainer ready reckoner makes it possible to weight the societal value of a service by equity, in recognition that supporting clients from more deprived areas can offer greater benefits in terms of a reduction in health inequalities. Based on a HELP utility score of 1.01, the weighted total value of outcomes is estimated as being at least £9,756,450 and the societal value changes to between £3.45 and £6.03 for every £1 spent on the service. Both the weighted and unweighted societal value ranges indicate that WFL has made a positive impact on society.

DISCUSSION

This study demonstrates that clients who participated in the WFL intervention experienced positive changes in health behaviours and emotional wellbeing that likely resulted in significant health gains. The overall net cost per QALY gained (£3,900) compares favourably with a commonly-used threshold in UK public health, suggesting that the service offered good VfM. Combined with benefits derived from the delivery of group-based wellbeing interventions, signposting, asset mapping and other activities, the total estimated societal value of the WFL service was between £3.59 and £5.95 for every £1 spent (or between £3.45 and £6.03 using values weighted by equity). These ranges and the associated long-term public sector savings (i.e. at least £12,664,874) suggest that the service has made a positive impact on society. The results of our analyses also demonstrate that the WFL intervention offered a means of encouraging individual behaviour change amongst socioeconomically disadvantaged groups, thereby offering the potential to reduce health inequalities. Although the community development and other activities offered as part of the WFL service were included in the economic model, their impact has likely been underestimated. Further

research is needed to comprehensively determine the societal value of similar holistic, asset-based and lay-led approaches.

In terms of previous attempts to assess the VfM of LHW programmes, potential biases in measurement and methodological challenges have tended to limit interpretation of study results. For example, an economic evaluation was undertaken of a primary care-based health trainer service in north-west England (Barton et al., 2012). The control group received health promotion literature only, while the intervention group also had access to a theory-based intervention delivered by health trainers. The mean NHS and social service costs fell by slightly more in the intervention group, resulting in an incremental cost per QALY of £14,480. Limitations of the study included the small numbers involved; in spite of GP letters being sent to 2,275 patients, only 38 individuals were recruited to the control group and 72 to the intervention group. Furthermore, the average number of contacts per patient was 1.25 (compared with at least eight sessions in the WFL intervention) and many had no face-to-face contact with a health trainer, although those who did had the highest mean QALY gains. Studies conducted in non-UK contexts have found that there can be diseconomies of scale, and that any benefits arising from LHW programmes need to be balanced against the costs of training and supervision (Janowitz, Chege, Thompson, Rutenberg, & Homan, 2000; Makan & Bachman, 1997). However, these additional costs may be offset by a reduction in demand for professional-led health care and also result in significant cost savings for users in terms of reduced travel costs, wasted time and lost economic opportunities while seeking clinic-based care (S. A. Lewin et al., 2005; Reilly, Graham-Jones, Gaulton, & Davidson, 2004).

A realist review by Carr *et al.* (2011) found that lay-led interventions for diet and physical activity and mental health promotion were amongst the areas where the evidence is either inconclusive or suggests that these interventions are not cost-effective. This is in direct contrast with the results of the present study, where the majority of WFL clients had achieved behaviour change goals in relation to diet and physical activity or emotional wellbeing. Possible explanations include the more

holistic, integrated approach of the WFL service, which allowed clients to access a range of health-promoting activities and tailor the interventions to suit their needs. Areas where the published evidence suggests that LHW programmes are cost-effective include: smoking cessation, tuberculosis treatment, management of chronic conditions, reducing under-five mortality and HIV prevention (Carr et al., 2011; Sinanovic et al., 2003; Vaughan et al., 2015). Few WFL clients had sought help to achieve smoking-related goals, yet tobacco smoking is known to be linked to socioeconomic deprivation and also represents a 'high value' behaviour in the health trainer ready reckoner. This indicates that greater societal value could be achieved by targeting additional smokers through the WFL service. However, the values compare favourably with those of similar services.

A systematic review conducted to examine the use of SROI in different areas of public health identified 12 studies involving health promotion interventions and three involving nutrition-focused interventions (A. O. Banke-Thomas et al., 2015). The SROI ratios ranged from 1.1 to 11.0 for health promotion and 2.05 to 5.28 for nutrition, in comparison with 3.45 and 6.03 for WFL (using the values weighted by equity). However, the review authors suggested that 'it is not appropriate to compare the ratios to identify the most impactful or the intervention with the most value for money', due to heterogeneity in the SROI methodologies used (A. O. Banke-Thomas et al., 2015, p. 8). A more recent systematic review located 12 studies examining the return on investment (ROI, a separate metric from SROI) from health promotion interventions; the median ROI was 2.2 and the range was 0.7 to 6.2 (Masters, Anwar, Collins, Cookson, & Capewell, 2017). In contrast, the median ROI was 5.1 for healthcare public health interventions, 5.6 for wider determinants interventions, 34.2 for health protection interventions and 46.5 for legislative interventions. The authors concluded that, although local interventions average an impressive ROI, 'upstream interventions delivered on a national scale generally achieve even greater returns on investment' (Masters et al., 2017: 831). The recent cuts to public health funding as part of the UK government's programme of 'efficiency savings' can therefore be seen as a false economy, which may be mirrored in other public health systems that tend to be characterised by chronic underinvestment. Several local authorities have

decommissioned their health trainer services; many have replaced them with integrated approaches similar to WFL, albeit with relatively short-term funding that limits opportunities for assessment of longer-term impacts (Cheetham et al., 2017).

Limitations of the present study include the lack of a control or comparator group, which would have enabled us to draw more robust conclusions about the definitive impact of the WFL service. However, this was not feasible within the available resources or timescales, particularly given the political context of local authority public health and pressures to deliver against ambitious targets regarding client numbers. Using routine WFL monitoring data meant that we had access to relatively large datasets, but there were large quantities of missing data at the post-intervention period. This represents a source of bias in that those who took part in the assessments may have been the healthier or more motivated clients. Alternatively, those who did not complete the assessments may have experienced benefits that were not captured in our analyses, resulting in an under-estimation of the true cost-effectiveness of WFL. The economic model is based on a number of assumptions from the behaviour change literature, which may have resulted in over- or under-estimation of the longer-term costs and benefits. Additional healthcare costs linked to QALYs gained may offset any potential savings, but are often ignored in economic evaluations of health promotion interventions (Rappange, Brouwer, Rutten, & PH van Baal, 2010). In this case, we were reliant solely on net service costs, which included all aspects of WFL implementation and delivery but did not include healthcare costs. The ready reckoner was developed specifically for use with health trainer services, whereas WFL involves a number of additional elements and it is likely that their health and societal impacts have been underestimated. Many elements of similar LHW programmes, such as building trust, social mobilisation and changing community norms, are not easily quantifiable and therefore do not lend themselves to economic analyses, meaning that these analyses are often insensitive to the full range of social benefits (Lehmann & Sanders, 2007; Walker & Jan, 2005). There are no consistently applied approaches to economic evaluation of these programmes and therefore caution must be exercised in conducting comparisons or generalising results.

CONCLUSION

This paper presents an assessment of the estimated cost-effectiveness and societal value of the WFL service in northern England, using data on costs and volunteering provided by the service manager and data on outcomes extracted directly from the routine data reporting system. These data were entered into a 'ready reckoner' designed to determine the VfM of similar LHW programmes. It was not designed specifically for use with more holistic, multi-component services and therefore it is possible that the results represent an over- or under-estimation of the true value of WFL. We have been cautious in selecting the values used in the economic model and are reasonably confident that we have provided an 'at least' assessment of the benefits of this service. This study adds to the existing evidence base on both integrated health and wellbeing services and LHW programmes. It demonstrates that such services improve the health of individuals who engage with and successfully complete the interventions (including those from disadvantaged or marginalised groups), and may also offer longer-term societal benefits. Evaluating and demonstrating VfM of these interventions is necessary to ensure their sustainability, particularly in a wider context of austerity and cuts to public health funding. Recommendations for the future include: methodological developments to capture the full range of health and social benefits from lay-led programmes; policy measures to establish long-term funding streams that support similar community-centred approaches; and commitment to funding upstream interventions that tend to achieve greater returns on investment.

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559 **TABLES**

560 **Table 1: Costs of WFL service delivery**

	Delivery costs excluding VAT (in £)
One-to-one intervention *Personalised behaviour change interventions (8-12 weeks) delivered by general or specialist WFL health trainers*	2,465,550.50
Volunteer service *Recruitment, training and mentoring of volunteers to support, deliver and sustain community-based activities*	291,331.35
Wellbeing groups *Group-based wellbeing improvement interventions, usually involving a minimum of 4 sessions*	341,631.50
Capacity building *Training sessions delivered by WFL staff to public health and other relevant practitioners*	142,882.25
Community development *Asset mapping, community engagement and other activities carried out by WFL community development workers*	287,498.75
TOTAL	**3,528,894.25**

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562 **Table 2: Sample characteristics**

Characteristics	**Sample**
Gender (%)	
Female	74.0
Male	26.0
Age (mean in years; SD)	48.3 (17.2)
Ethnicity (%)	
White	97.8
Other	2.2
Deprivation deciles (%)*	
1 (most deprived)	14.5
2	23.0
3	19.8
4	15.0
5	8.6
6	6.9
7	3.9
8	3.7
9	3.7
10 (least deprived)	0.9
Employment status (%)	
In work	30.2
Retired	26.4
Unemployed	23.6
Permanently sick/disabled	9.3

Other	3.4
Full-time carer	2.2
Looking after home/family	2.1
Student	2.0
Volunteer	0.8

*Based on index of multiple deprivation (IMD) ranked scores derived from client postcodes.

566 **Table 3: Overall gains and cost savings**

Results	**Health gain (in QALYs)**	**Net cost (in £)**	**Cost savings (in £)**
Health gain from individual behaviour change	259.7	2,119,641	1,409,253
Additional gains from emotional wellbeing	18.9	2,050,983	68,658
Health gain from signposting	26.0		
Total health gain and cost savings to NHS (weighted for clients from deprived areas)	**287.7**		**1,477,911**
Cost offset to NHS from asset mapping activity			300,000
Cost offset to NHS from signposting and events			498,800
Total NHS cost savings and offset		**1,252,183**	**2,279,711**
Cost savings to local authority social care			126,326
Cost savings to criminal justice system			3,883
Total public sector cost savings and offset		**1,121,975**	**2,406,920**

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571 **Table 4: Total societal value of WFL**

Results	Human values of QALY improvement	Savings to criminal justice system	Savings to economy	Savings to NHS and LAs	Total values generated and long-term savings	SROI
Unweighted value 1 *(QALY valued at £31,000)*	£8,917,426	£3,883	£1,340,528	£2,403,037	£12,664,874	**£3.59**
Unweighted value 2 *(QALY valued at £60,000)*	£17,259,535	£3,883	£1,340,528	£2,403,037	£21,006,983	**£5.95**
Weighted* value 1 (lower QALY value)					£9,756,450	**£3.45**
Weighted* value 2 (higher QALY value)					£18,883,451	**£6.03**

572 *N.B. Both weighted values are based on a HELP utility score of 1.01.

ASSESSING THE VALUE FOR MONEY OF AN INTEGRATED HEALTH AND WELLBEING SERVICE IN THE UK

HIGHLIGHTS

- Lay health workers are widely used to deliver health and wellbeing-related services
- These services can represent good value for money
- In this example, the estimated societal value was at least £3.45 for every £1 spent
- Targeting disadvantaged groups also offers potential to reduce health inequalities